

The opinion in support of the decision being entered today was **not** written for publication and is not binding precedent of the Board.

**UNITED STATES PATENT AND TRADEMARK OFFICE**

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**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

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**Ex parte** Matthew M. Salatino  
and Patrick O. Weber

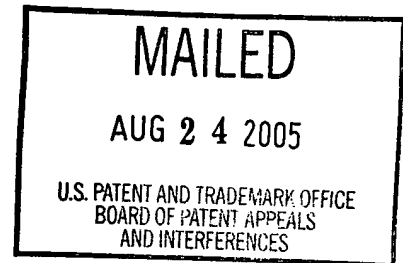
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Appeal No. 2005-2129  
Application No. 09/931,587

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**ON BRIEF**

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Before DIXON, BARRY, and BLANKENSHIP, **Administrative Patent Judges.**  
DIXON, **Administrative Patent Judge.**

**DECISION ON APPEAL**

This is a decision on appeal from the examiner's final rejection of claims 1-11, 13-22 and 24-33. Claim 12 has been withdrawn from consideration, and claims 23 and 34-62 have been canceled. The examiner has indicated that claims 22 and 24-33 are allowed and that claims 7-10 are objected to as being dependent on a rejected base claim. (Answer at page 9.)

We AFFIRM.

## BACKGROUND

Appellants' invention relates to methods (and apparatus) for making integrated circuit (IC) package including an opening exposing portion of the IC. An understanding of the invention can be derived from a reading of exemplary claim 1, which is reproduced below.

1. A method for making an integrated circuit (IC) package with an exposed portion of the IC, the method comprising:

providing a mold including first and second mold portions, the first mold portion carrying a mold protrusion defining an IC-contact surface with peripheral edges and a bleed-through retention channel positioned inwardly from the peripheral edges;

closing the first and second mold portions around the IC and injecting encapsulating material into the mold to form the IC package with the exposed portion adjacent the mold protrusion and while the bleed-through retention channel retains encapsulating material bleeding beneath the peripheral edges of the IC contact surface; and

releasing the IC package from the mold.

The prior art references of record relied upon by the examiner in rejecting the appealed claims are:

|                        |           |               |
|------------------------|-----------|---------------|
| Juskey et al. (Juskey) | 5,177,669 | Jan. 05, 1993 |
| Sono et al. (Sono)     | 5,703,398 | Dec. 30, 1997 |
| Glenn                  | 6,143,588 | Nov. 07, 2000 |

Appellants' Admitted Prior Art (AAPA) at pages 2, 14, 15, and 16.

Claims 1-6, 11, 13, 15, 17, and 20 stand rejected under 35 U.S.C. § 103 as unpatentable over the combination of Juskey and Sono. Claim 14 stands rejected under 35 U.S.C. § 103 as unpatentable over the combination of Juskey and Sono as applied to claim 13. Claims 16 and 21 stand rejected under 35 U.S.C. § 103 as unpatentable over the combination of Juskey and Sono as applied to claim 15 further in view of AAPA. Claim 18 stands rejected under 35 U.S.C. § 103 as unpatentable over the combination of Juskey and Sono as applied to claim 17 further in view of Glenn. Claim 19 stands rejected under 35 U.S.C. § 103 as unpatentable over the combination of Juskey, Sono, and Glenn as applied to claim 18 further in view of AAPA.

The examiner has indicated the claims 22 and 24-33 are allowed and that claims 7-10 are objected to as being dependent on a rejected base claim.

Rather than reiterate the conflicting viewpoints advanced by the examiner and appellants regarding the above-noted rejections, we make reference to the answer (mailed Feb. 14, 2005) for the examiner's reasoning in support of the rejections, and to the brief (filed Oct. 12, 2004) for appellants' arguments thereagainst.

### **OPINION**

In reaching our decision in this appeal, we have given careful consideration to appellants' specification and claims, to the applied prior art references, and to the respective positions articulated by appellants and the examiner. As a consequence of our review, we make the determinations which follow.

**35 U.S.C. § 103**

In rejecting claims under 35 U.S.C. § 103, the examiner bears the initial burden of presenting a *prima facie* case of obviousness. **See *In re Rijckaert***, 9 F.3d 1531, 1532, 28 USPQ2d 1955, 1956 (Fed. Cir. 1993). A *prima facie* case of obviousness is established by presenting evidence that the reference teachings would appear to be sufficient for one of ordinary skill in the relevant art having the references before him to make the proposed combination or other modification. **See *In re Lintner***, 458 F.2d 1013, 1016, 173 USPQ 560, 562 (CCPA 1972). Furthermore, the conclusion that the claimed subject matter is *prima facie* obvious must be supported by evidence, as shown by some objective teaching in the prior art or by knowledge generally available to one of ordinary skill in the art that would have led that individual to combine the relevant teachings of the references to arrive at the claimed invention. **See *In re Fine***, 837 F.2d 1071, 1074, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988). Rejections based on § 103 must rest on a factual basis with these facts being interpreted without hindsight reconstruction of the invention from the prior art. The examiner may not, because of doubt that the invention is patentable, resort to speculation, unfounded assumption or hindsight reconstruction to supply deficiencies in the factual basis for the rejection. **See *In re Warner***, 379 F.2d 1011, 1017, 154 USPQ 173, 177 (CCPA 1967), **cert. denied**, 389 U.S. 1057 (1968). Our reviewing court has repeatedly cautioned against employing hindsight by using the appellant's disclosure as a blueprint to reconstruct the claimed

invention from the isolated teachings of the prior art. **See, e.g., Grain Processing Corp. v. American Maize-Prods. Co.**, 840 F.2d 902, 907, 5 USPQ2d 1788, 1792 (Fed. Cir. 1988).

When determining obviousness, “the [E]xaminer can satisfy the burden of showing obviousness of the combination ‘only by showing some objective teaching in the prior art or that knowledge generally available to one of ordinary skill in the art would lead that individual to combine the relevant teachings of the references.’” **In re Lee**, 277 F.3d 1338, 1343, 61 USPQ2d 1430, 1434 (Fed. Cir. 2002), citing **In re Fritch**, 972 F.2d 1260, 1265, 23 USPQ2d 1780, 1783 (Fed. Cir. 1992). “Broad conclusory statements regarding the teaching of multiple references, standing alone, are not ‘evidence.’” **In re Dembiczak**, 175 F.3d 994, 999, 50 USPQ2d 1614, 1617 (Fed. Cir. 1999). “Mere denials and conclusory statements, however, are not sufficient to establish a genuine issue of material fact.” **Dembiczak**, 175 F.3d at 999-1000, 50 USPQ2d at 1617, citing **McElmurry v. Arkansas Power & Light Co.**, 995 F.2d 1576, 1578, 27 USPQ2d 1129, 1131 (Fed. Cir. 1993).

Further, as pointed out by our reviewing court, we must first determine the scope of the claim. “[T]he name of the game is the claim.” **In re Hiniker Co.**, 150 F.3d 1362, 1369, 47 USPQ2d 1523, 1529 (Fed. Cir. 1998). Therefore, we look to the limitations of independent claim 1. Additionally, we note that appellants have elected to group all of the dependent claims as standing or falling with independent claim 1. (Brief

at page 3.) Therefore, we select claim 1 as the representative claim. Claim 1 recites “[a] method for making an integrated circuit (IC) package with an exposed portion of the IC, the method comprising: . . . .” Here, we note that the claim recites a method of making rather than claiming the machine which is used or the mold. Therefore, we evaluate the claimed method against the applied prior art combination.

From our review of the teachings of Juskey and Sono, we agree with the examiner that the combination of teachings teaches and fairly suggests the claimed method of making an IC with an exposed portion of the IC as set forth by the examiner in the answer. Additionally, we note that Sono alone would have taught and suggested the claimed method of making an IC.

Appellants argue that Sono teaches a flat top and flat bottom portions of the mold which engage the heat radiating elements of the IC and that therefore there is “no IC-contact surface at all, much less an IC-contact surface with a bleed-through retention channel as claimed.” (Brief at page 7.) We disagree with appellants, and find that the surface having grooves 74 would have had a protrusion in the die plate from the runner 77 and the gate 78 which fill the encapsulating material. (Sono Figures 14, 16, 17, 20, 21, 22, 23.) The die additionally contacts the heat radiating elements which are part of the IC package which forms the exposed portion of the package. The grooves 74 and 84 are used to “prevent unwanted flow of resin.” (Sono at columns 6, lines 42-43 and column 7, lines 46-47.)

We further note that the language of independent claim 1 does not require a step of contacting a surface of the IC. The language of the claim merely sets forth closing the mold portions "around the the IC and injecting encapsulating material." Therefore, this argument is not persuasive.

Sono further teaches closing the mold portions around the IC and injecting the encapsulating material and the releasing the IC package from the mold. Therefore, we find that Sono alone teaches the method of making as recited in independent claim 1.

Appellants argue that the present invention is concerned with the difficulties in keeping encapsulating material from bleeding under a mold protrusion that contacts an IC to form an opening therein. (Brief at page 8.) We do not find that this argument is commensurate in scope with the instant method of making in claim 1. Therefore, this argument is not persuasive. Appellants argue that Sono is not directed to or concerned with IC's having an opening therein. (Brief at page 8.) We disagree with appellants since the heat radiating elements of Sono are exposed to form an opening in the encapsulating material. Therefore, this argument is not persuasive.

Appellants argue that the selective combination of the prior art of Juskey and Sono is not proper and the examiner has not provided a proper motivation for the combination. (Brief at page 8.) We disagree with appellants and do not find that Juskey teaches away from the combination. Additionally, we find that Sono alone teaches the claimed method. From our review of the teachings of the Juskey and

Sono, and the examiner statement of the rejection and responsive arguments, we find that the examiner has met the initial burden of establishing a *prima facie* case of obviousness of the claimed method. We have not found that appellants have shown error therein or adequately rebutted this *prima facie* case of obviousness of the claimed method. Therefore, we will sustain the rejection of independent claim 1 and its dependent claims.


Additionally, we note that we do not find that limitations concerning the structure of the mold portions distinguish the method of making an IC from any other mold portions unless those portions change the methodology of making the IC. For example in independent claim 22 the additional step of downsetting the IC in the method may be accomplished by a protrusion in the mold, but we find no such additional step recited in independent claim 1 so as to distinguish this claimed method from the prior art method of making an IC.




## CONCLUSION

To summarize, the decision of the examiner to reject claims 1-6, and 13-21 under 35 U.S.C. § 103 is AFFIRMED.

**AFFIRMED**

  
JOSEPH L. DIXON  
Administrative Patent Judge

  
LANCE LEONARD BARRY  
Administrative Patent Judge

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)  
) BOARD OF PATENT  
) APPEALS  
) AND  
) INTERFERENCES

  
HOWARD B. BLANKENSHIP  
Administrative Patent Judge

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